RESEARCH CENTER PUBLICATIONS

Albrecht, S.L., S.B. Wuest, P.E. Rasmussen, and C.L. Douglas, Jr. 1998. Carbon and nitrogen mineralization during wheat decomposition. p. 216. *In* Agronomy Abstracts. ASA, Madison, WI.

Albrecht, S.L., and D.E. Wilkins. 1998. Carbon dioxide emission from soils following direct seeding. p. 15–20. *In J.D. Williams* (ed.) 1998 Columbia Basin Agricultural Research Annual Report. Spec. Rpt. 989. Agric. Exp. Stn., Oregon State Univ. and USDA-ARS, Pendleton, OR.

Allmaras, R.R., D.E. Wilkins, O.C. Burnside, and D.J. Mulla. 1998. Agricultural technology and adoption of conservation practices. p. 99–157. *In* F.J. Pierce and W.W. Frye (ed.) Advances in soil and water conservation. Ann Arbor Press, Chelsea, MI.

Ball, D.A., F.L. Young, and A.G. Ogg, Jr. 1999. Selective control of jointed goatgrass with imazamox in herbicide-resistant wheat. Weed Technology. 13:(in press).

Ball, D.A., D.L. Walenta, and P.E. Rasmussen. 1998. Impact of nitrogen fertilization and stubble burning on the downy brome seedbank in a winter wheatfallow rotation. J. Prod. Agric. 11:342–344.

Ball, D.A., D.L. Walenta, and D. Singh. 1998. Evaluation of primisulfuron for downy brome control in eastern Oregon tall fescue seed production. p. 52–53. *In* 1997 Seed Production Research at O.S.U. Ext/CrS 111. OSU, Corvallis, OR.

Belnap, J., J.D. Williams, and J.H. Kaltenecker. 1999. Structure and function of biological soil crusts. p. 161-178. *In* R. Meurisse, W. Ypsilantis and K. Seybold

(tech. eds.) Proceedings of the Pacific Northwest Forest and Rangeland Soil Organisms Symposium. 17–19 November 1998, Corvallis, OR. OR. Gen. Tech. Rep. PNW-GTR-461. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.

Chen, C., W. A. Payne, and J. D. Williams. 1998. Comparison of two field methods for measuring unsaturated soil hydraulic conductivity in eastern Oregon. p. 283. *In* 1998 Annual Meeting Abstracts, American Society of Agronomy, 90th Annual Meeting, Baltimore, MD. ASA, Madison, WI.

Douglas, C.L., Jr., P.M. Chevalier, B. Klepper, A.G. Ogg, Jr., and P.E. Rasmussen. 1999. Conservation cropping systems and their management. p. 73–95. *In* E.L. Michalson, R.I. Papendick, and J.E. Carlson (ed.) Conservation farming in the United States: The methods and accomplishments of the STEEP Program. CRC Press, Boca Raton, FL.

Douglas, C.L., Jr., K.A. King, and J.F. Zuzel. 1998. Nitrogen and phosphorus in surface runoff and sediment from a wheat-pea rotation in Northeastern Oregon. J. Environ. Qual. 27:1170–1177.

Douglas, C.L., Jr., P.E. Rasmussen, H.P. Collins, and S.L. Albrecht. 1998. Nitrogen mineralization across a climosequence in the Pacific Northwest. Soil Biol. & Biochem. 30:1765–1772.

Douglas, C.L., Jr., J.D. Williams, and D.E. Wilkins. 1998. Nutrients in runoff from frozen soils in the dryland areas of the Pacific Northwest. p. 466–471. *In* O. Van Cleemput, S. Haneklaus, G. Hofman, E. Schnug, and A. Vermoesen (ed.) Fertilization

for sustainable plant production and soil fertility. Vol. II. Proc. of the 11th International World Fertilizer Congress. September 1997, Gent, Belgium. Federal Agricultural Research Center, Braunechewig, Germany

Douglas, C.L., Jr., J.D. Williams, and D.E. Wilkins. 1998. Nutrients in runoff from frozen soils in the dryland areas of the Pacific Northwest. J. Soil and Water Conserv. Abstr. 53(2):176.

Douglas, C.L., Jr., J.D. Williams, and D.E. Wilkins. 1997. Nutrients in runoff from frozen soils in the dryland areas of the Pacific Northwest. p. 130. *In* Abstracts from the 11th World Fertilizer Congress. Gent, Belgium. Federal Agricultural Research Center, Braunechewig, Germany

Elliott, L.F., D.E. Stott, C.L. Douglas, R.I. Papendick, G.S. Campbell, and H. Collins. 1999. Residue management issues for conservation tillage systems. p. 57–72. *In* E.L. Michalson, R.I. Papendick, J.E. Carlson (ed.) Conservation farming in the United States: The methods and accomplishments of the STEEP Program CRC Press. Boca Raton, FL.

Kamuru, F., S.L. Albrecht, L.H. Allen, Jr. and K.T. Shanmugam. 1998. Dry matter and nitrogen accumulation in rice inoculated with a nitrogenase derepressed mutant of *Anabaena variabilis*. Agron. J. 90:529–535.

Ogg, A.G., Jr., R.W. Smiley, K.S. Pike, J.P. McCaffrey, D.C. Thill, and S.S. Quisenberry. 1999. Integrated pest management for conservation systems. p. 97–128. *In* E.L. Michalson, R.I. Papendick, and J.E. Carlson (ed.) Advances in conservation farming. CRC Press, Boca Raton, FL.

Patterson, L.-M., R.W. Smiley, and S.A. Alderman. 1998. Effect of seed treatment fungicides and starter fertilizer on root diseases and yield of spring wheat. Fungicide and Nematicide Tests 53:425.

Patterson, L.-M., R.W. Smiley, K. Rhinhart, and M. Stoltz. 1998. Effect of planting date and cultivar on diseases of winter wheat. Biological and Cultural Tests for Control of Plant Diseases 13:124.

Payne, W.A. 1999. The *hilaire*: A traditional West African hoe that conserves soil water. Soil Sci. Soc.Am. J. (in press).

Payne, W.A., J. H. Williams, M.M. Keitella, and R. D. Stern. 1998. Crop diversification in the Sahel through use of environmental changes near *Faidherbia Albida (Del.) A. Chev.* Crop Sci. 38:1585–1591.

Payne, W.A. 1998. Hydraulic conductivity functions derived from soil water content data of a long-term experiment. p. 31–40. *In* J.D. Williams (ed.) 1998 Columbia Basin Agricultural Research Annual Report. Spec. Rpt. 989. Agric. Exp. Stn., Oregon State Univ. and USDA-ARS, Pendleton, OR.

Payne, W.A., P.E. Rasmussen, and S.L. Albrecht. 1998. Historical transition of the wheat/summer fallow systems of the inland Pacific Northwest. p. 50. *In* Agronomy Abstracts. ASA, Madison, WI.

Rasmussen, P.E., S.L. Albrecht, and R.W. Smiley. 1998. Soil carbon and nitrogen changes under tillage and cropping systems in semi-arid Pacific Northwest agriculture. *In* K. Paustian, E.T. Elliott, and M.R. Carter (ed.) Tillage and crop management impacts on soil carbon storage. Soil Tillage Res. 47:197–205.

Rasmussen, P.E., C.L. Douglas, Jr., H.P. Collins, and S.L. Albrecht. 1998. Long-term cropping system effects on mineralizable nitrogen in soil. Soil Biol. Biochem. 30:1829–1837.

Rasmussen, P.E., and C.L. Douglas, Jr. 1998. Fertility and tillage effects on wateruse efficiency of cereals. p. 272. *In* Agronomy Abstracts. ASA, Madison, WI.

Rasmussen, P.E., K.W.T. Goulding, J.R. Brown, P.R. Grace, H.H. Janzen, and M. Körschens. 1998. Long-term agroecosystem experiments: Assessing agricultural sustainability and global change. Science 282:893–896.

Rasmussen, P.E., W.A. Payne, and R.H. Goller. 1998. Thirty-year rainfall trends and implications for crop yield in the Columbia Plateau. p. 35–40. *In* J.D. Williams (ed.) 1998 Columbia Basin Agricultural Research Annual Report. Spec. Rpt. 989. Agric. Exp. Stn., Oregon State Univ. and USDA-ARS, Pendleton, OR.

Rasmussen, P.E., W.A. Payne, and R.H. Goller. 1998. Thirty-year rainfall trends, implications for crop yield in the Columbia Plateau. Wheat Life (Aug/Sep): 68–69. Washington Assoc. of Wheat Growers, Ritzville, WA.

Rickman, R.W. 1998. Watersheds of the Umatilla Basin. p. 61–64. *I In J.D.* Williams (ed.) 1998 Columbia Basin Agricultural Research Annual Report. Spec. Rpt. 989. Agric. Exp. Stn., Oregon State Univ. and USDA-ARS, Pendleton, OR.

Rickman, R.W., and P. Lucas. 1998. Simulation of Wheat Take-all (*Gaeumannomyces graminis* var. *Tritici*) Effects on the Seasonal Development of Winter Wheat (*Triticum aestivum L.*).

Abstracts of Invited and Offered Papers of the 7th International Congress of Plant Pathology, Edinburgh, Scotland, August 9– 6, 1998.

Shinn, S L., D C. Thill, W.J. Price, and D.A. Ball. 1998. Response of downy brome and rotational crops to MON 37500. Weed Technology. 12:690–698.

Singh, D., and D.A. Ball. 1998. Crop tolerance of seedling and established chewings fescue to primisulfuron in eastern Oregon. p. 54–55. *In* 1997 Seed Production Research at O.S.U. Ext/CrS 111. Oregon State Univ., Corvallis, OR.

Smiley, R.W. 1998. The Australian Competition: A call for response by our industry and institutions. Oregon Wheat 49(8):13–16.

Subbarao, G.V., C.R. Renard, A.B. Bationo, and W.A. Payne. 1999. Long-term effects of tillage, P fertilization and crop rotation on a pearl millet productivity in West Africa. Expl Agric. (in press).

Wilkins, D.,T. Darnell, and J. Kraft. 1998. Integrated conservation tillage system for control of pea root rot disease. Paper No. 98-1032. Am. Soc. Agric. Engineers, St. Joseph, MI.

Wilkins, D.E., P.E. Rasmussen, S.L. Albrecht, and W.A. Payne. 1998. Sustainable tillage and cropping systems for the Columbia Plateau. p. 75–83. *In* Proc. of the Workshop on Sustainable Tillage Systems. Auburn, AL, July 8–10, 1998.

Wilkins, D.E., and S. Wuest. 1998. Seeding peas and barley into heavy cereal residue. p. 47–52. *In* J.D. Williams (ed.) 1998 Columbia Basin Agricultural Research Annual Report. Spec. Rpt. 989. Agric. Exp.

Stn., Oregon State Univ. and USDA-ARS, Pendleton, OR.

Williams, J.D., J.P. Dobrowolski, and N.E. West. 1999. Microbiotic crust influence on unsaturated hydraulic conductivity. Arid Soil Research and Rehabilitation 12(2): (accepted 29 July 1998).

Williams, J.D., C.F. Clifton, J. Webster, and R.W. Rickman. 1998. Morphological description main stem of the Umatilla river for TMDL development and monitoring. Western Watersheds: Science, Sense, and Strategies—Western Watershed 7^{th} Management Council Biennial Conference. Watershed Management Council, Oakland, CA/Northwest Watershed Research Center, USDA-ARS, Boise, ID.

Williams, J.D., C.L. Douglas, W.A. Payne, and P.E. Rasmussen. 1998. Surface runoff from semiarid croplands; preliminary hydrologic evaluation of sixty-eight year ongoing soil crop management research. **Abstract** Booklet, American Water Resources 34th Annual Conference on Water American Water Resources Resources. Association, Herndon, VA.

Williams, J.D., D.E. Wilkins, C.L. Douglas, Jr., and R.W. Rickman. 1998. The influence of crop residue management on winter soil erosion. Proc. Am. Assoc. Adv. Sci.: Pacific Division 17(1):43.

Williams, J.D., D. E. Wilkins, C.L. Douglas, Jr., and R.W. Rickman. 1998. The influence of crop residue management on winter soil erosion, p. 7. *In* 1998 Annual Meeting Abstracts, 90th Annual Meeting, Appendix 4. Am. Soc. Agron., Baltimore, MD.

Williams, J.D., D.E. Wilkins, D.K. McCool, L.L. Baarstad, E.L. Klepper, and R.I. Papendick. 1998. A new rainfall simulator for use in low-energy rainfall areas. Applied Engineering in Agric. 14(3):243–247.

Wuest, S.B., P.E. Rasmussen, C.L. Douglas, Jr, R.W. Rickman, S.L. Albrecht, D.E. Wilkins, and R.W. Smiley. Documenting soil quality changes in the transition to no-till: 16 years no-till versus first year no-till and conventional tillage near Pendleton, Oregon. p. 74-76. In R.J. Veseth (ed.) Proc. Northwest Direct Seed Cropping Systems Conference and Trade Show. Spokane WA. 5–7 Jan. 1999. Pacific Northwest STEEP III Conservation Farming Reasearch and Education Program, University of Idaho, Moscow ID.

Wuest, S.B., and S.L. Albrecht. 1998. Is seed-soil contact essential? Vapor versus liquid imbibition in the germination of wheat seeds. p. 109. *In* Agronomy Abstracts. ASA, Madison, WI.

Wuest, S.B., and S.L. Albrecht. 1998. Vapor Versus Liquid Imbibition in the Germination of Wheat Seeds. *In* Agronomy Abstracts. ASA, Madison, WI.

Wuest, S.B. 1998. The two R's of on-farm research. In Proc. Precision Agriculture Conference, Third Annual. Brandon, Manitoba. 18–19 November 1998. Precision Agriculture Conference Assiniboine Committee, Community College, Brandon, MB.